

REMARKS

I. Introduction

Claims 1 to 10 are pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Assertions of Well-Known Fact

As an initial matter, Applicant respectfully **traverses** any and all assertions of well-known fact included in the Office Action and respectfully requests published information concerning these assertions and/or an affidavit under 37 C.F.R. § 1.104(d)(2) concerning these assertions.

III. Rejection of Claims 1 to 4 and 6 Under § 102(b)

Claims 1 to 4 and 6 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,149,340 ("Waycuilis"). It is respectfully submitted that Waycuilis does not anticipate the present claims for at least the following reasons.

Claim 1 recites a second fuel fraction in the form of a permeate that is aromatics-enriched. As set forth in Applicant's Amendment filed January 16, 2007, the hydrocarbon mixture described in Waycuilis does not include a second fuel fraction in the form of a permeate that is aromatics-enriched. The Final Office Action asserts that Waycuilis "teaches the general process of removing impurities from hydrocarbons, and membranes or membrane modules designed to permit passage of specific impurities normally desired to be removed from hydrocarbons are readily available commercially, which would anticipate this limitation." Final Office Action, page 3. Applicant again respectfully points out that the hydrocarbon mixture in Waycuilis does not contain any aromatics at all and, as set forth above, traverses any and all assertions of well-known fact included in the Office Action and respectfully requests published information concerning these assertions and/or an affidavit under 37 C.F.R. § 1.104(d)(2) concerning these assertions.

The Final Office Action also asserts that "the reference is **inherently** capable of performing the separation claimed." Final Office Action, page 3 (emphasis added). Applicant respectfully disagrees with this contention. Waycuilis makes no mention whatsoever of a second fuel fraction in the form of a permeate that is

aromatics-enriched. Accordingly, the allegation that “the reference is inherently capable of performing the separation claimed” is apparently based on nothing more than pure speculation or conjecture. To rely upon a theory of inherency, “the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” See M.P.E.P. § 2112; emphasis in original; and see, Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). “Inherency, however, may not be established by probabilities or possibilities,” and “[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient.” In re Robertson, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950 to 1951 (Fed. Cir. 1999). Accordingly, the inherency arguments set forth in the Final Office Action must fail.

For at least the foregoing reasons, Waycuilis does not disclose, or even suggest, all of the features recited in claim 1. As such, it is respectfully submitted that Waycuilis does not anticipate claim 1.

As for claims 2 to 4 and 6, which depend from claim 1 and therefore include all of the features recited in claim 1, it is respectfully submitted that Waycuilis does not anticipate these dependent claims for at least the same reasons more fully set forth above in support of the patentability of claim 1.

For at least the foregoing reasons, withdrawal of this rejection is respectfully requested.

IV. Rejection of Claims 1 to 7 Under 35 U.S.C. § 102(e)

Claims 1 to 7 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,972,093. As set forth in Applicant’s Amendment submitted January 16, 2007, U.S. Patent No. 6,972,093 does not constitute prior art against the present application under 35 U.S.C. § 102(e), or otherwise. A certified English-language translation of German Application No. 102 55 778.0 and a certified English-language translation of German Application No. 103 36 759.4 are submitted herewith. Accordingly, withdrawal of this rejection is therefore respectfully requested.

Regarding the Examiner’s assertion that “[i]t also appears that the German application with priority date 11/29/02 may not have sufficient disclosure to support the claim limitations,” Applicant respectfully disagrees and invites the Examiner to specifically point out claim features that are allegedly unsupported. Final Office Action, page 4.

V. Rejection of Claims 1 to 7 Under 35 U.S.C. § 103(a)

Claims 1 to 7 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent Application Publication No. 2002/0139111 ("Ueda et al.") and Waycuilis. It is respectfully submitted that the combination of Ueda et al. and Waycuilis does not render unpatentable the present claims for at least the following reasons.

The Final Office Action asserts that "[a]romatics in the permeate would be inherent." Final Office Action, page 4 (emphasis added). Applicant respectfully disagrees with this contention and respectfully submits, for the reasons set forth above, that the inherency arguments must fail.

The present rejection is also deficient because there is no teaching or suggestion to combine Waycuilis and Ueda et al. The Final Office Action asserts that "Waycuilis teaches a similar process with sweep gas, which, Waycuilis teaches, would improve the process, such as more efficiency, improved separation, reduced membrane area, reduced losses, etc." Final Office Action, pages 4 to 5. This is not a suggestion or motivation for making the proposed combination. Furthermore, the statement that "[i]t would have been obvious ... to use the teaching of Waycuilis in the teaching of Ueda to have the sweep gas to improve the process" and the statement that "since the Ueda system is actually mounted in a vehicle, it would be obvious to one of ordinary skill ... to use air as sweep gas instead of providing a separate gas stream such as fuel gas" are conclusory statements that it would have been obvious to combine the references to achieve an alleged end result. Final Office Action, page 5. As such, the present rejection is apparently based on nothing more than improper hindsight, which cannot support an obviousness rejection.

Furthermore, Ueda et al. disclose a system for separating fuel into fractions. Waycuilis, in contrast, teaches a process which separates hydrocarbons. There is no reason a person of skill in the art would expect success in combining the use of a sweep gas known in the separation of methane and ethane with a system for separating fuel fractions.

Finally, as previously pointed out to the Examiner, Ueda et al. disclose a process based on the separation of fuel fractions due to a high pressure side and a low pressure side of a membrane. If the system disclosed in Ueda et al. was provided with a supply of gaseous fuel, as disclosed in Waycuilis, the use of a high and a low pressure

side of a membrane disclosed by Ueda et al. would be lost by using the sweep gas stream disclosed by Waycuilis. Also, the system described in Ueda et al. includes, on the permeate side of a separation device, a vacuum pump and a condenser. Vacuum pumps are normally destroyed under a continuous supply of a sweep gas stream. For at least these additional reasons there is no motivation or suggestion to make the proposed combination.

It is respectfully submitted that the combination of Ueda et al. and Waycuilis does not render unpatentable claims 1 to 7.

For at least the foregoing reasons, withdrawal of this rejection is respectfully requested.

VI. Conclusion

In light of the foregoing, Applicant respectfully submits that all pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

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By:

Respectfully submitted,

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